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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,954

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EXAMINER

LE, DAVID D

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,954	Applicant(s) EYRAUD ET AL.	
	Examiner David D. Le	Art Unit 3655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/06/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/551,954, filed on 23 August 2006. Claims 1-21 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Declaration and Power of Attorney, received on 08/23/06
 - Information Disclosure Statement, received on 10/06/05
 - Copy of Foreign Priority Document, received on 10/06/05

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1:

- Line 9 recites the limitation “a first gear”. It is unclear whether this newly recited limitation “a first gear” is different from the one, which is first recited on line 4 of claim 1.

- Lines 9-10 recite the limitation “a second gear”. It is unclear whether this newly recited limitation “a second gear” is different from the one, which is first recited on line 6 of claim 1.

Claim 3:

- Lines 1-2 recite the limitation "the coupling means". There is insufficient antecedent basis for this limitation in the claim.

Claim 4:

- Line 4 recites the limitation "the coupling means". There is insufficient antecedent basis for this limitation in the claim.

Claim 5:

- Lines 1-2 recite the limitation "the coupling means". There is insufficient antecedent basis for this limitation in the claim.

Claim 9:

- Line 1 recites the limitation "the coil". There is insufficient antecedent basis for this limitation in the claim.
- Line 3 recites the limitation "the armature". There is insufficient antecedent basis for this limitation in the claim.

Claim 12:

The phrase "e.g. by means of a rolling element bearing" renders the claim indefinite because it is unclear whether the rolling element bearing is part of the claimed invention. See MPEP § 2173.05(d).

Claim 14:

- Line 3 recites the limitation "the stator". There is insufficient antecedent basis for this limitation in the claim.
- Line 4 recites the limitation "the rotor". There is insufficient antecedent basis for this limitation in the claim.

Claim 15:

The phrase "e.g. an external toothing" renders the claim indefinite because it is unclear whether the external toothing is part of the claimed invention. See MPEP § 2173.05(d).

Claim 16:

- Line 3 recites the limitation "the rotor". There is insufficient antecedent basis for this limitation in the claim.
- Line 3 recites the limitation "the stator". There is insufficient antecedent basis for this limitation in the claim.

Claim 17:

The dependency of claim 17 has been crossed out. It is unclear which claim that the present claim 17 is dependent upon. Accordingly, the present claim 17 has not been further treated on the merits.

Claim 18:

- Line 3 recites the limitation "the sun gear". There is insufficient antecedent basis for this limitation in the claim.
- Line 4 recites the limitation "the ring gear". There is insufficient antecedent basis for this limitation in the claim.

Claim 19:

The phrase "for instance an encoder sensor" renders the claim indefinite because it is unclear whether the encoder sensor is part of the claimed invention. See MPEP § 2173.05(d).

Claim 20:

The phrase "e.g. a clutch module, a damper module, a balancing module, etc" renders the claim indefinite because it is unclear whether the clutch module, the damper module, and the balancing module are part of the claimed invention. See MPEP § 2173.05(d).

Claim 21:

- Line 2 recites the limitation “several parts”. It is unclear which parts of the clutch and how many parts of the clutch that the claimed limitation is referring to.
- The phrase "metallic or non-metallic components, composite, powder, sheet metal material components etc" renders the claim indefinite because it is unclear whether the metallic or non-metallic components, composite, powder, sheet metal material components are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-3, 12, 14-16 and 18-21, as best understood, are rejected under 35**

U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,730,676 to Schmidt.

Claims 1-3, 12, 14-16 and 18-21:

Schmidt (Figs. 1-4; column 2, line 11 – column 7, line 54) discloses a transmission comprising:

- A housing (i.e., Fig. 1, element 60);

- An input shaft (i.e., Fig. 1, element 50) and an output shaft (i.e., Fig. 1, element 72) rotatably supported with respect to the housing;
- A drive gear set (i.e., Fig. 1, element 18) and a control gear set (i.e., Fig. 1, element 20) each comprising a first gear (i.e., Fig. 1, element 32 or 44), a number of pinion gears (i.e., Fig. 1, elements 36 or 42), a carrier (i.e., Fig. 1, element 34 and 40) onto which the pinion gears are mounted, and a second gear (i.e., Fig. 1, element 30 or 48), each pinion gear meshing with the corresponding first gear and second gear of the gear set, as well as control means (i.e., Fig. 1, being a combination of elements 14, 64, 62, 58 and electronic control unit) for influencing the rotation of the second gear (48) of the control gear set (20);
- Wherein the first gear (32) of the drive gear set (18) is connected to the input shaft (50), the carrier (34) of the drive gear set (18) is operatively connected to the output shaft (72) and the second gear (30) of the drive gear set (18) is connected to the carrier (40) of the control gear set (20), the first gear (44) of the control gear set (20) being operatively connected to the output shaft (72) and the second gear (48) of the control gear set (20) being connected to the control means;
- A coupling means (i.e., Fig. 1, element 56) is provided for selectively establishing a rotatable or non-rotatable connection between the input shaft and the output shaft;
- Wherein the coupling means (56) is associated with the first gear of the drive gear set and the second gear of the control gear set (i.e., Fig. 1);

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- Wherein the first gear of the drive gear set and the carrier of the control gear set are rotatably supported with respect to each other (i.e., Fig. 1);
- Wherein the control means comprises an electric motor (i.e., Fig. 1, element 14), a stator of which is commonly connected to the housing and a rotor of which is operatively connected to the second gear (48) of the control gear set (20);
- Wherein the first gear (32) of the drive gear set (18) has external toothing for engagement with a starter motor (i.e., Fig. 1, element 16);
- Wherein the first gear (32) of the drive gear set (18) is operatively connected to a commonly known rotor of the starter motor (16);
- Wherein the control gear set (20) is a planetary gear set, the first gear (44) being a sun gear and the second gear being a ring gear (48);
- A sensor commonly provided for providing information to the control means (column 3, line 15 – column 4, line 48);
- Wherein different modules are applied (i.e., Fig. 1); and
- Wherein several parts of the transmission can be made of metallic or non-metallic components, or composite, powder and sheet metal material components.

7. Claims 1-3, 13-15, 18, 20 and 21, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by U. S. Patent No. 2,672,565 to R. Helmer (hereinafter referred to as Helmer).

Claims 1-3, 13-15, 18, 20 and 21:

Helmer (Figs. 1-7; column 3, line 1 – column 9, line 5) discloses a transmission comprising:

- A housing (i.e., Fig. 1, element 10);
- An input shaft (i.e., Fig. 1, element 15) and an output shaft (i.e., Fig. 1, element 18) rotatably supported with respect to the housing;
- A drive gear set (i.e., Fig. 2, being combination of elements 37, 34, 35 and a portion of 36) and a control gear set (i.e., Fig. 2, being combination of elements 31, 32, 33 and a portion of 36) each comprising a first gear (i.e., Fig. 2, element 37 or 31), a number of pinion gears (i.e., Fig. 2, elements 35 or 32), a carrier (i.e., Fig. 2, element 35 and 33) onto which the pinion gears are mounted, and a second gear (i.e., Fig. 2, element 36), each pinion gear meshing with the corresponding first gear and second gear of the gear set, as well as control means (i.e., Fig. 2, being a combination of elements 25, 21, 22, and 20) for influencing the rotation of the second gear of the control gear set;
- Wherein the first gear of the drive gear set is operatively connected to the input shaft (15), the carrier of the drive gear set is operatively connected to the output shaft (18) and the second gear of the drive gear set is connected to the carrier of the control gear set, the first gear of the control gear set being operatively connected to the output shaft (18) and the second gear of the control gear set being operatively connected to the control means;

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- A coupling means (i.e., Fig. 2, element 46) is provided for selectively establishing a rotatable or non-rotatable connection between the input shaft and the output shaft;
- Wherein the coupling means (46) is associated with the first gear of the drive gear set and the second gear of the control gear set (i.e., Fig. 2);
- Wherein the first gear of the drive gear set is operatively connected to the input shaft through a spring damper (i.e., Fig. 2, element 40);
- Wherein the control means comprises an electric motor (i.e., Fig. 2), a stator (i.e., Fig. 2, element 21) of which is commonly connected to the housing and a rotor (i.e., Fig. 2, element 20) of which is operatively connected to the second gear of the control gear set;
- Wherein the first gear of the drive gear set has external toothing (i.e., Fig. 2);
- Wherein the control gear set is a planetary gear set, the first gear (31) being a sun gear and the second gear being a ring gear (i.e., Fig. 2);
- Wherein different modules are applied (i.e., Fig. 2); and
- Wherein several parts of the transmission can be made of metallic or non-metallic components, or composite, powder and sheet metal material components.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Hasegawa et al. (U. S. Patent No. 7,018,314) teaches an engine starter, as shown in Fig. 1.
- Nauheimer et al. (U. S. Patent No. 6,358,176) teaches an electromechanical drive, as shown in Fig. 1.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0900-1730).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David D. Le/
Primary Examiner, Art Unit 3655
11/21/2008

ddl